



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO:	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/619,256	07/14/2003	Timo Kalevi Korpela	Korpela I 6902	
7590 10/12/2006			EXAMINER	
John Dodds			KHANNA, HEMANT	
Dodds and Associates 1707 N Street NW			ART UNIT	PAPER NUMBER
Washington, DC 20036			1654	
		DATE MAILED: 10/12/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	10/619,256	KORPELA ET AL.					
Office Action Summary	Examiner	Art Unit					
	Hemant Khanna	1654					
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim 11 apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONED.	I. ely filed the mailing date of this communication. Of (35 U.S.C. § 133).					
Status	•						
1) Responsive to communication(s) filed on 25 Au	aust 2006.						
<u> </u>	action is non-final.						
, <u> </u>	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4)⊠ Claim(s) <u>1-17</u> is/are pending in the application.							
4a) Of the above claim(s) <u>9-14</u> is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-8 and 15-17</u> is/are rejected.							
7) Claim(s) is/are objected to.	7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.						
Application Papers							
9) The specification is objected to by the Examiner	•	·					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11)☐ The oath or declaration is objected to by the Exa	aminer. Note the attached Office	Action or form PTO-152.					
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received.							
 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 							
3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Bureau	•	a in this realistic Stage					
* See the attached detailed Office action for a list of the certified copies not received.							
	•						
Attachment(s)	,,□ -						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary (Paper No(s)/Mail Dat						
3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application							
Paper No(s)/Mail Date 6)							

DETAILED ACTION

1. Applicant's election with traverse of claims 1-4, 6-7 that belong to Group I in the reply filed on August 25, 2006 is acknowledged. Amendments to the claims 1-16 is acknowledged. Applicant's amendments to the claims that render the restriction between Groups I, II, III, and V moot is acknowledged. Further, the addition of the new claim 17 depending on claim 2, amendments to claims 3, and 5 so as to be dependent on claim 17, and cancellation of claim 4 is acknowledged.

Applicant's argue that the products of Group I, II, III, and V overlap in scope (See page 10-12 of Remarks and Arguments). Based on the Applicant's arguments and amendments to the claims that read on the products of Group I, II, III and V, the Restriction between inventions of Group I, II, III, and V is withdrawn.

Applicant's further argue that the restriction between the products of Group I, II, III, V and the method of Group IV is improper. Applicant's argue that the shortness of the peptides cannot be used in the materially different process of producing antibodies. The applicant's arguments are not found persuasive. The Examiner respectfully points out that the peptide having the claimed sequence of the instant invention can be utilized to locate epitopes of immunological importance useful for a variety of diagnostic applications involving the detection of Hepatitis GB Virus (HGBV, abstract, column 26, Example 1; column 39-40, SEQ ID NO:5, residues 10-13, USPN 5,843,450). Based on the Examiners arguments that the products of Group I, II, III, V and the method of Group IV are patentably distinct, the restriction between the product Groups and the method Group IV is maintained.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-17 are pending.

Based on the Applicant's arguments (above) that the products of Group I, II, III and V are the same, the elected species of SEQ ID NO:1, SEQ ID NO:4 and SEQ ID NO:4 must all be drawn to the broad Group of products, while being previously drawn to Groups I, II and III. Hence in accordance with the election of species requirement, Applicant is allowed only one species should no generic claim be finally held allowable.

Applicant elected the species having the amino acid sequence of Ala-Thr-Ala-Thr-Leu-Val (SEQ ID NO: 1), which belongs to the invention of Group I and is embraced by claims 3, 17, 2 and I. Applicant's species has not been found free of the prior art and the claims 3, 17, 2 and I stand rejected under 35 USC 102 as set forth below.

For the benefit of the Applicant, additional species were also examined. Hence, Thr-Ala-Thr-Val-Thr-Val (SEQ ID NO:5), and TTKL (SEQ ID NO: 4) were examined.

Applicant's species of SEQ ID NO:5 has not been found free of the prior art and claims 1, 2, 5, and 17 stand rejected under 35 USC 102 as set forth below. Applicant's species of SEQ ID NO:4 has not been found free of the prior art and claims 6-8 stand rejected under 35 USC 102 as set forth below.

Claims 9-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Election was made with traverse in the reply filed on August 25, 2006.

Specification

2. The disclosure is objected to because of the following informalities: the absence of SEQ ID NO:'s after all amino acid sequences is inconsistent with the disclosure rules. See 37 CFR 1.821 (d). Such sequences are present on page 20 of the specification and in the claims. Appropriate correction is required.

Claim Objections

- 3. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 recites limitations on a pathogenic bacterium, which does not further limit structurally the peptide of claim
- 1. The peptide of claim 1 does not comprise a Gram-negative bacteria, instead it recites a structural correlation to adhesive organelle in Gram-negative bacteria.
- 4. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

dependent form, or rewrite the claim(s) in independent form. Claim 17 recites limitations on the structure of the adhesive organelle of Gram-negative bacteria. However, the antimicrobial peptide of claim 2 does not comprise the adhesive organelle of Gram-negative bacteria.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 15-16 are indefinite because it is not clear what is intended by using "further consisting" to define an inhibitor. It is not clear what was included in the inhibitor molecule that is now being included as a possible "further" addition.

Claim Rejections - 35 USC § 102

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 6. Claims 1-3, 17 rejected under 35 U.S.C. 102(b) as being anticipated by Hultgren et al (USPN 6,001,823).

The claims are drawn to an antimicrobial peptide comprising the sequence of Ala-Thr-Ala-Thr-Leu-Val represented by SEQ ID NO:1.

Hultgren et al disclose peptides that define the binding site of the interaction between a chaperone PapD and pilus subunits for use as inhibitors of pilus assembly in the treatment of patients infected by bacteria from the group consisting of Escherichia coli and Yersinia (column 9, lines 1-10; column 8, lines 33-45). Further, Hultgren et al teach a peptide that comprises the instant's SEQ ID NO:1 as represented by SEQ ID NO:13 (Table 1, column 49), thus meeting all the limitations of claims 1-3, and 17.

7. Claims 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Wang L. et al (WO 02/077183).

The claim is drawn to a peptide comprising the sequence of Thr-Ala-Thr-Val-Thr-Val represented by SEQ ID NO:5.

Wang L. et al disclose a peptide with SEQ ID NO: 64876 with registry NO: 477120-68-6 that comprises the sequence of Thr-Ala-Thr-Val-Thr-Val. Wang L. et al further disclose that the instant sequence aligns with the sequence of Wang L. et al at positions 151-156, thus meeting all the limitations of claim 5.

8. Claims 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hochheimer A. et al (Eur. J. Biochem (1995) 234:910-920).

The claim is drawn to a peptide comprising the sequence of TTKL represented by SEQ ID NO:4.

Hochheimer A. et al disclose the internal peptides of the protein FmdB obtained by endoproteinase Lys-C digestion, which contain the sequence TTKL at positions 14-17 in peptides 5 and 6 (Table 1, page 912), thus meeting all the limitations of claim 6-8. To the extent that the Applicant utilized the same sequence denoted by SEQ ID NO:4, as was utilized by Hochheimer A. et al., the teachings of Hochheimer A. would inherently result in the claimed properties of inhibiting polymerization of Dr. haemagglutinin.

Conclusion

9. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant Khanna whose telephone number is (571) 272-9045. The examiner can normally be reached on Monday through Friday, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Hemant Khanna September 27, 2006

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